

1 **ABSTRACT**

2 An electronic asset system mints a stick of electronic assets that can be
3 spent by the user with multiple vendors. Assets sticks are issued anonymously or
4 non-anonymously in a way without requiring dedication to a particular vendor,
5 hence allowing the user to spend one or more assets from the stick with different
6 vendors. The auditor randomly audit samples of the spent assets to detect whether
7 the assets have been fraudulently used. The electronic asset system employs
8 tamper-resistant electronic wallets constructed as dedicated hardware devices, or
9 as devices with secure-processor architecture. The electronic asset system also
10 facilitates handling of electronic coupons in a manner that enforces compliance
11 between the user and the vendor. The user and vendor each maintain a stick of
12 corresponding coupons with pointers to the most recent and oldest coupons
13 available for expenditure. When a coupon is used or granted, the user and vendor
14 both update the appropriate pointer to their respective sticks and then exchange
15 signed data describing placement of the pointer to verify a correspondence
16 between the referenced coupons.

17
18
19
20
21
22
23
24
25